

NPOESS

National Polar-orbiting Operational
Environmental Satellite System



The NPOESS Mission is to provide weather and climatic data to support civilian requirements and military security missions. These data will be acquired from low earth polar orbit and down-linked in real-time to field terminals, with stored data distributed to processing centers in near real-time. The data include: global and regional environmental imagery, and specialized meteorological, climatic, terrestrial, oceanographic, solar-geophysical and other related data.

Civilian Benefits

- ***Timely, accurate, and cost-effective public warnings and forecasts of severe weather events, reduce the potential loss of human life and property and advance the national economy***
- ***Support of commercial and general aviation, agriculture, and maritime communities aimed at increasing U.S. productivity***
- ***Commitment to support long-term data continuity for environmental monitoring and Global Change Assessment***

Military Benefits

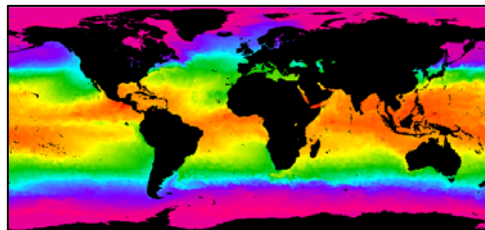
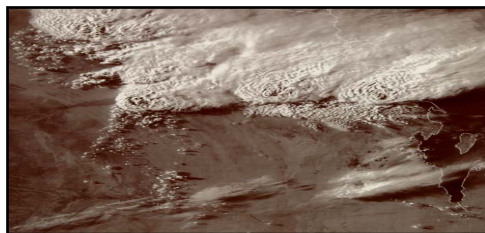
- ***Shift tactical and strategic focus from “coping with weather” to “anticipating and exploiting” atmospheric, oceanographic, and space environmental conditions***
- ***Weather permeates all aspects of military operations. NPOESS data will provide improved situational awareness which is critical to strategic planning and tactical superiority.***

National Benefits

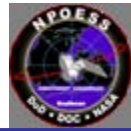
Accurate forecasts are critical to the preservation of life, safety, and property.

NPOESS data will improve forecasts and warnings, reducing loss of life and property, and benefit US industry through increased productivity.

NPOESS will provide long-term data continuity for climate monitoring and assessment.



NPOESS Background and Objectives



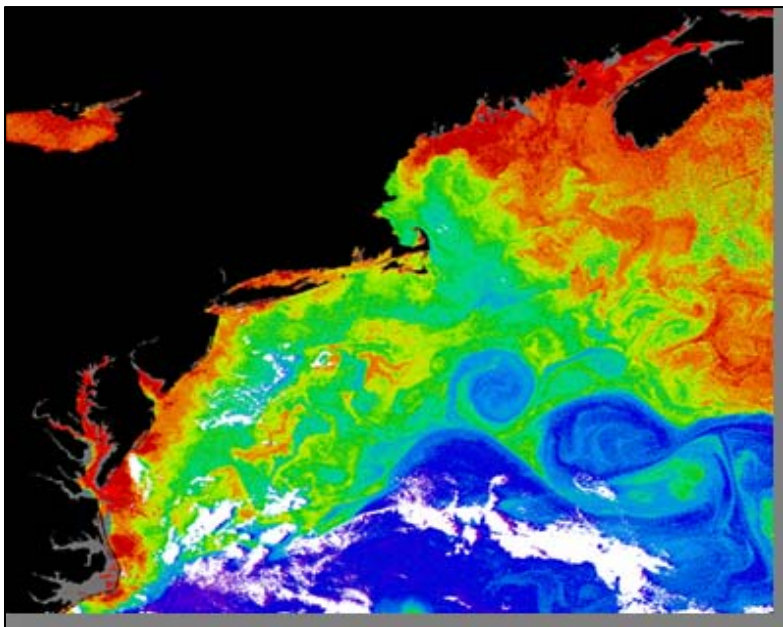
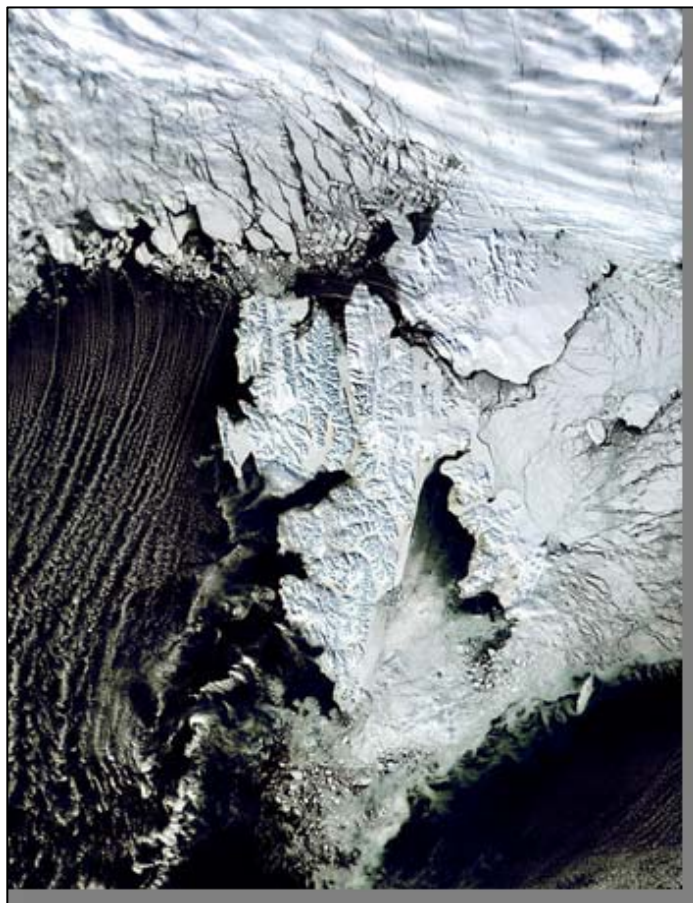
Background

NOAA's Polar-orbiting Operational Environmental Satellite (POES) and the DoD's Defense Meteorological Satellite Program (DMSP) have served the nation for over 40 years.

In 1994, the Administration recognized that converging the Department of Defense (DoD) and Department of Commerce (DOC) systems would result in a more cost effective and higher performance integrated system. As a result, in May 1994, a convergence plan was submitted to the U.S. Congress stating:

NPOESS can "reduce the cost of acquiring and operating polar-orbiting environmental satellite systems, while continuing to satisfy U.S. operational requirements for data from these systems."

The President endorsed this initiative, signing Presidential Decision Directive NSTC-2, "...establishing a single, converged, operational system [that] can reduce duplication of efforts in meeting common requirements while satisfying the unique requirements of the civil and national security communities." NPOESS is managed by the Integrated Program Office (IPO).



Objectives

- **Provide a single, national, polar-orbiting remote-sensing capability to acquire, receive, and disseminate global and regional environmental data**
- **Incorporate new technologies from the National Aeronautics and Space Administration's (NASA's) Office of Earth Science (OES) program**
- **Encourage international cooperation**

The current national architecture includes NPOESS satellites in two orbits to meet the combined civil and military requirements. Complementary data from EUMETSAT's Metop satellite in the mid-morning orbit will be shared to enhance global coverage and refresh rates for real-time environmental monitoring.

For additional information about NPOESS, please visit our website at: <http://www.npoess.noaa.gov>